

### **REMARKS**

In response to the Office Communication mailed October 13, 2010 (**Final Action**) and further to the Notice of Appeal filed April 11, 2011, Applicants submit the following remarks. The one-month extended deadline to file a response is July 11, 2011. Applicants previously submitted a one-month Petition for Extension of Time and the appropriate fee. Therefore Applicants believe that this response is being timely filed. Applicants also submit herewith a Request for Continued Examination (RCE) and the appropriate fee. The RCE is submitted to allow entry and consideration of the amendments provided herein. Applicants believe that the fees submitted herewith are sufficient. However, in the event that Applicants are incorrect, please charge any necessary fees to Deposit Account No. 23-2415, referencing Docket No. 28436-701.831.

At the outset, the undersigned Applicants' representative wishes to thank Examiner Smith for the courteous interview conducted on June 28, 2011 in the presence of Applicants' representatives Vern Norviel and Samir Elamrani as well as Dr. Martin Reese, one of the inventors on the subject application. The above amendments are offered consistent with the discussions with the Examiner. The substance of the interview is further discussed below.

#### **I. STATUS OF CLAIMS**

Upon entry of this paper, claims 1-32 will remain pending in this application, with claims 1, 4-12, 15, 16, 18, 19, 21, 24, 25, and 31 currently under examination and 2, 3, 13, 14, 17, 20, 22, 23, 26-30, and 32 having been withdrawn from consideration. Claims 1 and 9 have been amended and support for the amendments can be found in at least paragraphs [0039], [0068] and [0073] of the published application. No new matter is introduced by these amendments. Accordingly, entry of the amendments is proper and respectfully requested.

Applicants offer the above amendments solely for the purpose of expediting allowance of the subject application. Applicants have not dedicated or abandoned any unclaimed subject matter and moreover have not acquiesced to any rejections and/or objections made by the Patent Office. Applicants reserve the right to pursue prosecution of any presently excluded subject matter in one or more continuation and/or divisional applications.

#### **II. CLAIM REJECTIONS UNDER 35 U.S.C. § 112**

The Examiner has rejected claims 1, 4-12, 15, 16, 18, 19, 21, 24, 25, and 31 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. This rejection is respectfully traversed for at least the following reasons.

In order to expedite allowance of the subject application, and consistent with the discussions with the Examiner during the interview; Applicants have revised claims 1 and 9 to recite "degree of linkage." The full first paragraph on page 3 of the Office Action indicates that the language "degree of linkage" has written support in the specification. Thus; it is believed that the rejection under 35 U.S.C. § 112, first paragraph for alleged lack of written description has been obviated. Accordingly, withdrawal of the rejection is respectfully requested.

### **III. CLAIM REJECTIONS UNDER 35 U.S.C. 102**

Claims 1, 4-12, 15-16, 18-19, 21, 24, 25, and 31 have been rejected under 35 U.S.C. § 102(a) and (e) as allegedly being anticipated by Blumenfeld et al. (US 6,528,260 B1). This rejection is respectfully traversed for at least the following reasons.

In order to expedite allowance of the subject application and consistent with the discussions with the Examiner during the interview; Applicants have amended independent claims 1 and 9 to recite a method for determining an individual's probability of exhibiting one or more phenotypic attributes, comprising: evaluating genomic markers from the individual for zygosity at each member of a preselected set of markers; wherein each preselected marker has a degree of linkage with one or more of the one or more phenotypic attributes, wherein zygosity is heterozygosity or homozygosity for each selected marker from the preselected set; comparing the zygosity of the preselected markers to a multivariate scoring matrix to obtain a marker score, wherein the multivariate scoring matrix correlates patterns of marker zygosity with probabilities of exhibiting the one or more phenotypic attributes, using suitable computer software for use on a computer; wherein the scoring matrix prioritizes markers with respect to one or more criteria selected from the group consisting of homology to another marker sequence of interest, synteny with respect to other marker sequences, ontological relevance, quality of supporting research, and degree of phenotypic significance; **whereby marker priority incorporates local genome context information in the comparison step**; and determining whether the marker score indicates an enhanced, diminished, or average probability of exhibiting one or more phenotypic attributes.

Blumenfeld et al. fails to disclose each feature of the present claims. For example, as discussed with the Examiner during the interview; Blumenfeld et al. does not at all suggest determining marker priority much less incorporating marker priority in a multivariate scoring matrix to obtain a marker score. Accordingly, Blumenfeld et al. cannot and does not anticipate the present claims.

Moreover, consistent with the discussion with the Examiner during the interview, Applicants have amended claims 1 and 9 to clarify that marker priority incorporates local genome context information.

Accordingly, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 102(a) based on Blumenfeld et al.

In view of the above amendments and remarks, Applicants submit that the present application is now in condition for allowance and such favorable action is earnestly solicited.

### CONCLUSION

Applicants submit that this paper fully addresses the rejections raised in the Final Office Action dated October 13, 2010. Should the Examiner have any questions, the Examiner is encouraged to contact the undersigned at (858) 350-2337. The Commissioner is authorized to charge any additional fees which may be required, for this or any future communication, including petition fees and extension of time fees, to Deposit Account No. 23-2415 (Docket No. 28436-701.831).

Respectfully submitted,

Date: July 11, 2011

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